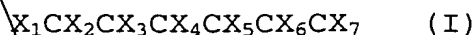


## CLAIMS

1) The use, as an insecticide, of a polypeptide comprising a sequence which satisfies the following general formula (I):



in which C represents a cysteine residue,  $X_1$  represents an amino acid or a sequence of 2 to 10 amino acids,  $X_2$  represents an amino acid or a sequence of 2 to 5 amino acids,  $X_3$  represents a sequence of 4 to 10 amino acids,  $X_4$  represents a sequence of 3 to 10 amino acids,  $X_5$  represents an amino acid or a sequence of 2 to 4 amino acids,  $X_6$  represents a sequence of 7 to 15 amino acids, and  $X_7$  represents an amino acid or a sequence of 2 to 10 amino acids.

2) The use as claimed in claim 1, characterized in that  $X_1$  represents a dipeptide,  $X_2$  represents a tripeptide,  $X_3$  represents a heptapeptide,  $X_4$  represents a tetrapeptide,  $X_5$  represents an amino acid,  $X_6$  represents a nonapeptide, and  $X_7$  represents a pentapeptide.

3) The use as claimed in either of claims 1 and 2, characterized in that:

-  $X_1$  satisfies the sequence  $y_1y_2$  in which  $y_1$  and  $y_2$  each represent an amino acid chosen from alanine, serine, glycine and threonine, or  $y_1$  represents an amino acid chosen from alanine, serine, glycine and threonine, and  $y_2$  represents glutamic acid or aspartic acid; and/or

-  $X_2$  satisfies the sequence  $y_3y_4y_5$  in which  $y_3$  represents glutamine or asparagine, and  $y_4$  and  $y_5$  each represent an amino acid chosen from alanine, serine, glycine, threonine, valine, leucine, isoleucine and methionine; and/or

-  $X_3$  satisfies the sequence  $y_6y_7y_8y_9y_{10}y_{11}y_{12}$  in which  $y_6$  represents an amino acid chosen from alanine, serine, glycine and threonine,  $y_7$ ,  $y_{11}$  and  $y_{12}$  each represent proline,  $y_8$  represents an amino acid chosen from phenylalanine, tryptophan and tyrosine,  $y_9$  represents

aspartic acid or glutamic acid, and  $y_{10}$  represents an amino acid chosen from valine, leucine, isoleucine and methionine; and/or

5 -  $X_4$  satisfies the sequence  $y_{13}y_{14}y_{15}y_{16}$ , in which  $y_{13}$ ,  $y_{14}$ ,  $y_{15}$  and  $y_{16}$  each represent an amino acid chosen from alanine, serine, glycine and threonine, or  $y_{14}$  represents an amino acid chosen from alanine, serine, glycine and threonine,  $y_{13}$  and  $y_{15}$  each represent a basic amino acid, and  $y_{16}$  represents aspartic acid or glutamic  
10 acid; and/or

-  $X_5$  represents a basic amino acid; and/or

-  $X_6$  satisfies the sequence  $y_{17}y_{18}y_{19}y_{20}y_{21}y_{22}y_{23}y_{24}y_{25}$ , in which  $y_{17}$ ,  $y_{19}$ ,  $y_{21}$  and  $y_{23}$  each represent an amino acid chosen from valine, leucine, isoleucine and methionine,  
15  $y_{18}$  represents proline,  $y_{20}$  and  $y_{24}$  each represent an amino acid chosen from alanine, serine, glycine and threonine,  $y_{22}$  represents an amino acid chosen from valine, leucine, isoleucine, methionine, phenylalanine, tryptophan and tyrosine, and  $y_{25}$  represents an amino  
20 acid chosen from phenylalanine, tryptophan and tyrosine; and/or

-  $X_7$  satisfies the sequence  $y_{26}y_{27}y_{28}y_{29}y_{30}$  in which  $y_{26}$  represents a basic amino acid or an amino acid chosen from valine, leucine, isoleucine and methionine,  $y_{27}$   
25 represents asparagine or glutamine or a basic amino acid,  $y_{28}$  represents proline, and  $y_{29}$  and  $y_{30}$  each represent an amino acid chosen from alanine, serine, glycine and threonine.

4) The use as claimed in any one of claims  
30 1 to 3, characterized in that the polypeptide used as an insecticide has at least 60% identity with any one of the isoforms of a PA1b albumin.

5) The use as claimed in claim 4, characterized in that said polypeptide is chosen from  
35 the group consisting of PA1b albumins and leginsulins.

6) The use as claimed in any one of claims 1 to 5, characterized in that said polypeptide is used

for protecting cereal seeds, or products derived from them, against insect pests.

7) The use as claimed in any one of claims 1 to 5, characterized in that said polypeptide is used for protecting plants against insects which are pests for cereal grains.

8) The use as claimed in any one of claims 1 to 7, characterized in that said polypeptide is used at a concentration of 10  $\mu\text{mol/kg}$  to 100  $\text{mmol/kg}$ .

9) The use as claimed in claim 8, characterized in that said polypeptide is used at a concentration of 50  $\mu\text{mol/kg}$  to 10  $\text{mmol/kg}$ .

10) The use as claimed in any one of claims 1 to 9, characterized in that it comprises the treatment of the product to be protected with a preparation comprising said polypeptide.

11) The use as claimed in any one of claims 1 to 10, characterized in that it comprises the production of a transgenic plant which is transformed with at least one gene encoding said polypeptide, and which expresses the latter in at least one of its tissues or organs.

12) The use as claimed in claim 11, characterized in that said transgenic plant is a cereal.